

## SECTION V.—SEISMOLOGY.

## SEISMOLOGICAL ABBREVIATIONS USED IN THE INSTRUMENTAL REPORTS.

## CHARACTER OF THE EARTHQUAKE.

I = noticeable.

II = conspicuous.

III = strong.

d = (terræ motus domesticus) = local earthquake (sensible or felt).

v = (terræ motus vicinus) = near-by earthquake (within 1,000 km.).

r = (terræ motus remotus) = distant earthquake (1,000 to 5,000 km. distant).

u = (terræ motus ultimus) = very distant earthquake (beyond 5,000 km.).

 $\Delta$  = distance to epicenter.

## PHASES.

P = (undæ primæ) = first preliminary tremors.

PR<sub>n</sub> = P waves reflected  $n$  times at the earth's surface.

S = (undæ secundæ) = second preliminary tremors.

SR<sub>n</sub> = S waves reflected  $n$  times at the earth's surface.

PS = transformed waves; longitudinal (P) to transversal (S) or vice versa.

L = (undæ longæ) = long waves in the principal portion.

M = (undæ maxima) = greatest motion in the principal portion.

C = (coda) = trailers.

O = time at epicenter.

L<sub>epi</sub> = long waves reaching the station from the anti-epicenter (40,000 km. -  $\Delta$ ).L<sub>epi</sub> = long waves again reaching the station from the anti-epicenter (40,000 km. +  $\Delta$ ).

F = (finis) = end of perceptible trace.

## NATURE OF THE MOTION.

i = (impetus) = abrupt beginning.

e = (emersio) = gradual appearance.

T = period = twice the time of oscillation.

A = amplitude of the earth's movement, reckoned from the zero line.

E, N, or Z attached to a symbol signifies the E-W, the N-S, or the vertical component, respectively, thus:

A<sub>E</sub> is the E-W component of A.A<sub>N</sub> is the N-S component of A.A<sub>Z</sub> is the vertical component of A. } Measured in microns{ ( $\mu$ ),  $10^{-6}$  mm.

## INSTRUMENTAL CONSTANTS.

T = period of instrument.

V = magnification of instrument.

 $\epsilon$  = damping ratio.

## SEISMOLOGICAL REPORTS FOR JANUARY, 1918.

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TABLE 1.—Noninstrumental earthquake reports, January, 1918.

Day.	Approximate time, Greenwich Civil.	Station.	Approximate latitude.	Approximate longitude.	Intensity Rossi-Forel.	Number of shocks.	Duration.	Sounds.	Remarks.	Observer.
1918. Jan. 14.....	H. m.	CALIFORNIA. Eureka.....	° 40 49	° 124 11	.....	1	M. s.	.....	.....	U. S. Weather Bureau.
16	12 00	Brawley.....	33 00	115 31	3	1	None.....	.....	.....	M. D. Witter.
		MAINE. Calais.....	45 11 44 64	67 17 66 59	3 3	1	Rumbling.....	Like coal through chute.....	.....	U. S. Weather Bureau.
		Eastport.....				1	Rumbling.....	Like coal through chute.....	.....	U. S. Weather Bureau.
		TENNESSEE. Knoxville.....	35 56	83 58	5	1	0 08 Explosion.....	May have been dynamite on ice jam in river.	.....	U. S. Weather Bureau.